

# *TECHNIChLOR*<sup>TM</sup>



## *OPERATING INSTRUCTIONS*

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**530-205-4520**

Manual Version: 3/30/15 TechniChlor Serial Numbers starting with 87

Made in the USA

# ***IMPORTANT SAFETY INSTRUCTIONS***

## **READ & FOLLOW ALL INSTRUCTIONS**

**When installing and using this electrical equipment, basic safety precautions should always be followed, including the following:**

**WARNING:** Remove the TechniChlor from the SPA when using the SPA.

**WARNING:** Cutting the cord from the power supply to the TechniChlor cell voids the warranty. Damage will occur if the connection is reversed.

**WARNING:** To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.

**WARNING:** Use TechniChlor only according to these instructions. Any modification or misuse of this product will void the warranty.

**WARNING:** Install TechniChlor in accordance with all national and local electrical, plumbing, safety, and other applicable codes.

**WARNING:** Connect TechniChlor to a GFCI (ground fault circuit interrupt) or GFI (ground fault interrupt) protected VAC power source only.

**WARNING:** Protect the power supply and outlet from exposure to the elements including direct sun, rain, snow, condensation, etc.

**WARNING:** DO NOT use with extension cord. Injury may result.

**WARNING:** DO NOT insert objects into, or tamper with TechniChlor's body in any way. Inserting metal objects into the body may cause damage and void the warranty.

**WARNING:** DO NOT operate TechniChlor if damaged in any way.

**WARNING:** DO NOT pull on the cord to disconnect the Power Supply from power source. Do not allow the cord be walked on, or to rest on sharp edges or corners. Do not drop, throw, or otherwise rough handle TechniChlor.

**WARNING:** DO NOT handle the unit during chlorine production (visible bubbling). Slight discomfort may be felt in cuts, sores, or sensitive skin areas due to chlorine concentration and the electrolysis process. Stop chlorine production by either removing TechniChlor from the water by lifting the cord (do not grasp the housing), or by unplugging the power supply from the power source.

**WARNING:** DO NOT operate or leave the power supply in temperatures below 32°F or 0°C. The power supply may not survive in extremely cold temperatures.

**WARNING:** Disconnect, remove and store TechniChlor indoors when spa has been winterized or drained.

**WARNING:** Make sure the power supply is unplugged when cleaning the cell.

**CAUTION:** Leave spa cover open at least 1 minute to allow trapped gases to escape prior to use.

**CAUTION:** Measure water quality parameters and adjust if necessary prior to each spa use.

**CAUTION:** TechniChlor doesn't measure the chlorine level and must be adjusted properly in order to not over-chlorinate your spa. Over-chlorination can lead to spa damage and un-healthy water conditions.

## **SAVE THESE INSTRUCTIONS**

# INTRODUCTION

TechniChlor is a semi-automated, salt water chlorine generation system specifically designed for portable spas up to 1000 Gallons. TechniChlor generates chlorine from a small amount of ordinary salt (Sodium Chloride, NaCl) dissolved in the spa water. The amount of salt added is very small in relation to the volume of the water in the spa. The concentration required for the TechniChlor is only about 5% of the salt level of ocean water and below the typical taste level of most humans.

The small addition of salt also benefits spa users by providing a softening effect on the water, leaving hair and skin feeling smoother and healthier than with traditional sanitizing products. Only 2.5 cups of salt per 100 gallons (379 liters) of water is all it takes for TechniChlor to produce fresh, pure chlorine leaving your water clean and clear day after day.

The TechniChlor produces chlorine in its pure form using electrolysis in order to sanitize the spa water. The TechniChlor operates on a 3 hour cycle. The chlorine in a spa will dissipate quickly due to the warmer temperatures of the water, so the TechniChlor operates with a short 3 hour cycle time to ensure sanitizer levels are maintained. After the salt is converted to chlorine, the chlorine will later, be converted back to salt, keeping the salt level steady. When you use the spa your body attracts some salt and when you get out the salt level will drop slightly.

## WATER PREPARATION & MAINTENANCE

To ensure proper operation, the spa must be drained, rinsed, refilled with fresh water, and balanced to the recommended levels indicated in this section before installing the product. Use the test strips to measure water chemistry and verify that the water is properly balanced. Replacing the filter is recommended but not required unless the spa was previously sanitized with a hydrogen peroxide system. The combination of hydrogen peroxide and chlorine may cause gum-like build up, water discoloration, and skin irritation.

It is important to properly maintain your spa for the health and safety of its users. Spas are unique in both size and usage patterns. TechniChlor will significantly reduce the amount of spa maintenance required, but regular chemical checkups, including chlorine levels and pH, are recommended. Proper water maintenance will prolong the life of TechniChlor and the spa. The following table describes generally accepted optimum water chemistry for portable spas.

It is recommended that chlorine and PH levels are checked before each use, or at least once per week when not in use. Alkalinity, Calcium Hardness, and Salt Concentration should be checked at least once per month. It is recommended that the spa is manually shocked after high usage (example: after a party with multiple users), or biweekly if used frequently. Always remember to leave the spa circulating for several hours before retesting.

Phosphates in the spa water will increase the demand for chlorine and will reduce the life expectancy of the generator. Remove Phosphates upon start up and each month there after. Phosphate Remover can be purchased at any local Pool & Spa supply store.

**WARNING: Consistent chlorine levels above 5.0 PPM (parts per million) or consistent salt concentration levels above 5,000 PPM may lead to corrosion of metal components in the spa.**

**WARNING: Consistently low Calcium Hardness levels below 150 PPM may lead to spa equipment damage and failure. Make sure Calcium Hardness levels are within the recommended range above.**

Parameter	Recommended Level
Free Chlorine	2.0 to 3.0
pH	7.2 to 7.6
Total Alkalinity	80 to 120 PPM
Calcium Hardness	200 to 400 PPM

# SALT REQUIREMENT

TechniChlor will generate either Chlorine or Bromine depending on the type of salt - it all depends on which sanitizer you prefer. Use Sodium Chloride Salt if you prefer Chlorine Generation and Sodium Bromide Salt if you prefer Bromine. Please Note: Each salt requires a different level of salinity for the TechniChlor to operate effectively. **WARNING: SALT ONLY NEEDS TO BE ADDED ONCE AND BROUGHT TO THE APPROPRIATE SALT LEVEL (BLUE LIGHTS) PER SPA WATER CHANGE. DO NOT KEEP ADDING SALT.**

**CHLORINE SALT - SODIUM CHLORIDE (NaCl):** Raise Salt Level to 1,500 to 2,000 PPM (Parts Per Million). Approved salts include "pool salt" made for salt water chlorine generating systems, canning and pickling salt from your local market, and some water softener salts that are 99% pure sodium chloride or better. Some high-end, mineral enriched salts can be used but require higher quantities to achieve 2,000 PPM sodium chloride salt level. These approved salts are generally available at pool & spa supply stores, home improvement centers and On-Line stores in a variety of sizes. Never use rock salt or salts that have more than 1% "anti-caking agents", "yellow prussiate of soda", or "sodium ferrocyanide". These compounds may cause surface staining.

**BROMINE SALT - SODIUM BROMIDE (NaBr):** Raise Salt Level to 3,000 PPM (Parts Per Million). There are several manufacturers of Sodium Bromide Salt to choose from. Please make sure the Sodium Bromide you purchase is 99% pure or better. Ask your local pool and spa dealer for assistance.

## Chart is Based on 100 Gallons or 379 Liters of Spa Water

Salt Type	Pounds	kg	Cups	Salt Level
99% Pure Sodium Chloride (NaCl)	1.5	0.681	2.5	1500-2000 PPM
99% Pure Sodium Bromide (NaBr) Fine Grain Salt	2.5	1.135	4	2500-3000 PPM

The amount of salt to add and dissolve is dependent upon the size of the spa. Determine the volume of water in gallons or liters by checking the spa owner's manual or use any Internet volume calculator.

- 99% Pure Sodium Chloride (NaCl) Coarse Grain Example:
- For a 350 Gallon Spa: Divide 350 Gal by 100 and multiply by 2.5 to get the amount to add in cups.
  - $(350 / 100 = 3.5 \times 2.5 = 8.75 \text{ Cups})$
- For a 1250 liter Spa: Divide 1250 liters by 379 and multiply by 0.681 to get the amount to add in kg.
  - $(1250 / 379 = 3.3 \times 0.681 = 2.25 \text{ kg})$  and for cups  $(1250 / 379 = 3.3 \times 2.5 = 8.25 \text{ cups})$

Simply pour the recommended amount of salt directly into the spa water to bring the concentration to the recommended level. Turning the spa jets on. If the water is cold it may take several hours for the salt to fully dissolve, warmer water will help dissolve the salt faster.

**NOTE:** It may take the TechniChlor a few hours to register the salt level the first time. Wait a couple of hours for the salt to dissolve, and then turn on the TechniChlor.

**NOTE:** When putting salt in, do not add too much. The TechniChlor will shut down and display **RED/GREEN** lights at the same time. It is always better to put less in, and then add a little more later if needed. If you have a water softener then your water source may already have some salt, in this case let the water get to temperature and turn the TechniChlor on before adding any salt to check the current level.

**NOTE:** If you are trying to decide which salt you want to use, ControlOMatic recommends pool salt (NaCl). Sodium bromide (NABR) is around \$13 per pound and pool salt (NaCl) is around \$0.18 per pound. To use NaBr on a 400 gallon spa would cost around \$130 for the salt, and then you would have to buy it again when you drain your spa. ControlOMatic has also received feedback that the smell from Bromine is noticeable.

**NOTE:** Many hardware stores and big box stores carry pool salt, so it is easy to find 40 pound bags at such places.



# TechniChlor Installation

## Prepare the SPA

Drain and clean the spa if required. Refill and add salt. Allow the water to get to over 95°F and balance the water.

## Installation Steps

1. Electrical outlet if not already available near the spa for the Power Supply
2. Drape the TechniChlor over the side into the water
3. Plug in the power supply to turn it on
4. Set the power level

## Power Supply

The power supply supports 100 to 240 VAC with an output voltage of 5.5 VDC. The supply cord from the Power Supply to the TechniChlor is 15 feet. Installing any equipment inside the spa equipment compartment may void the spa warranty or void the safety certification of the spa and is not recommended.

### 110 VAC Electrical Outlet

Locate a GFCI protected outlet near the spa. **WARNING: A 110 VAC GFCI or GFI protected outlet is required.** A weather protective cover is required to house the power supply at the power source connection. Weather protective covers are available at most local hardware stores. If an outlet needs to be installed, have a licensed electrician add a 110 VAC GFI protected outlet.

### 220 VAC Electrical Outlet

The power supply plug style is for 110 VAC. Have a licensed electrician install a 220 VAC GFI protected connection near the spa that will accept a 110 VAC style plug. The outlet may need to be a minimum distance from the spa and the local electrical codes should be checked.

## Power Supply Connector

Remove the tie straps from the TechniChlor's cable, unwind the cable, attach the cord's water tight black connector to the black power supply connector, and hand tighten the nut. The connector has 2 metal pins, one is round and the other is rectangular, this connector can only go in one way. Reversing the connection will damage the TechniChlor.

## Turn TechniChlor On

Place the TechniChlor into the water by draping it over the side. The TechniChlor has temperature compensation and if the water is warm allow the TechniChlor about 15 minutes to warm up to the spa's temperature (if the TechniChlor is cold when it is on it will only stay on a few minutes and go into standby mode).

When the TechniChlor turns on it will perform a light test to make sure all of the lights are operating and will display 4 **RED**, then 4 **BLUE** and then 4

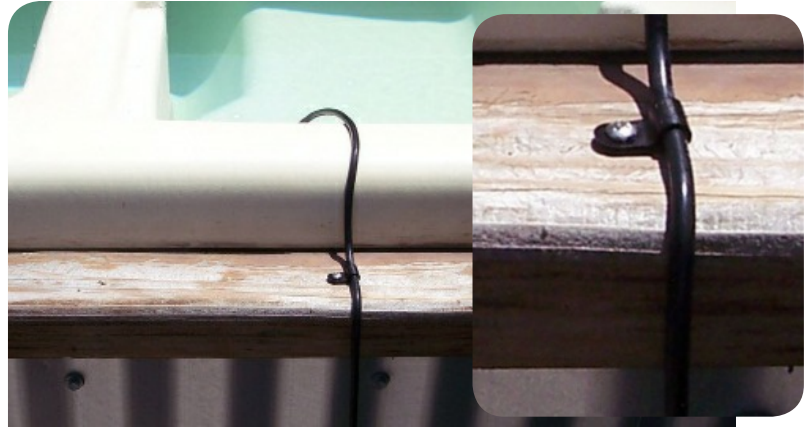
**GREEN**, and then the temperature (see temperature compensation for a description of how to read the temperature from the color flashes). After a brief pause, the unit will begin chlorine production.



# Cable Clip

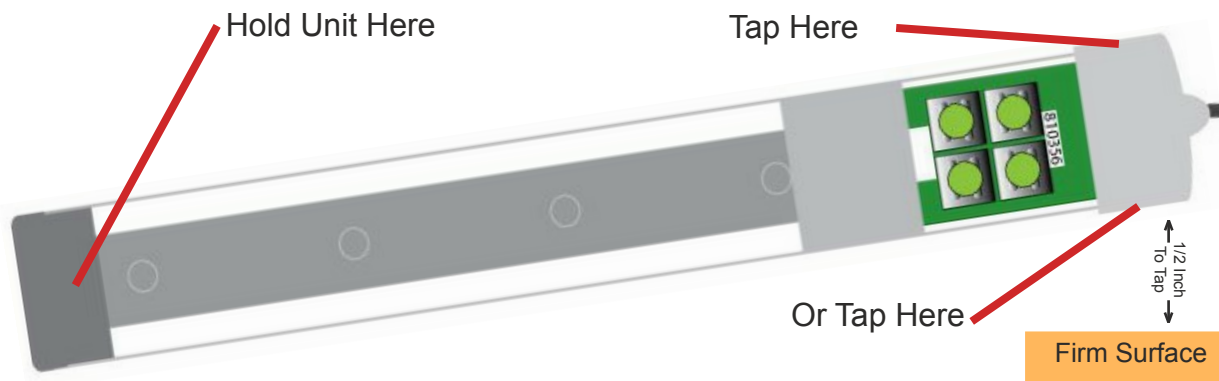
Attach the supplied cable clip to the outside of the spa by first inserting the cable into the cable clip. Then use the wood screw to fasten the cable clip to any point near the spa's edge.

The TechniChlor works best when in the deepest part of the spa and in a vertical orientation. If it is lying flat air bubbles will accumulate in the cell lowering the chlorine production.



## TechniChlor Operation

TechniChlor operates using Tap Technology. Tap Technology simply requires you to hold TechniChlor firmly at the end opposite the cable and Gently Tap the Soft Rubber Cap against a firm surface such as your hand or side of the spa (See Diagram Below). Start your tap approximately 1/2" (Half Inch) away from the tap surface. Always tap on either side of the green circuit board as indicated in the diagram below so the lights are facing you.



### Modes of Operation

**LIGHTS OFF:** This mode lasts 30 minutes and is used to keep the lights off when you are using the spa. If the TechniChlor is making chlorine (bubbles leaving the cell) then take it out of the water to enter this mode, or a single tap will put it into this mode. When done put it back in the water and when the 30 minutes is up it will restart. If the TechniChlor is put in water with no salt it will continually be in this mode.

**NORMAL CHLORINE PRODUCTION:** There will be 2 lights of the same color on solid and 2 lights will be off.

**STANDBY MODE:** TechniChlor produces chlorine in 3-Hour increments and will be on for a period of that time and off for the rest of that time. The on and off times vary for each power level. Standby Mode is indicated by a quick **GREEN** flash every 10 seconds when it is not producing chlorine and is in an off portion of a 3-Hour production cycle. This is very a normal operation.

**BOOST MODE CHLORINE PRODUCTION:** All 4 lights will be on with the same color. The TechniChlor will be making chorine for a longer period of time in the boost mode.

# TAPPING ACTIONS

There are 4 operations that can be activated by tapping. When performing multiple taps, they should be about 1 second apart.

**1 TAP (LIGHTS OFF):** After the tap, the **RED** lights will flash quickly 4 times and then all lights will be off for 30 minutes. Enjoy the SPA without any lights on for 30 minutes

**2 TAPS (CHLORINE PRODUCTION):** The **BLUE** lights will flash the power level and then a normal on cycle will start with 2 lights on indicating the salt level

**3 TAPS (BOOST MODE CHLORINE PRODUCTION):** The **BLUE** lights will flash the power level and then a boost on cycle will start with 4 lights on indicating the salt level

**4 TAPS (CHANGE POWER LEVEL):** The **GREEN** lights will flash up to 10 times allowing for changing the power level, when done the **BLUE** lights will flash the current power level to verify if a change was made

**6 TAPS (RESTART):** This will reboot the TechniChlor and is the same as cycling power. It will perform the light test, display the temperature and then go into chlorine production mode reversing the polarity on the plates for self cleaning

## Changing the Power Level

There are two ways to Change the power level of the TechniChlor:

- Cycle power when the TechniChlor is out of the water
- Tap 4 times to enter the change power level mode

### Cycle power Method

Requires cycling the AC input power to initiate, with the TechniChlor out of the water first

- Remove the TechniChlor from the water
- Turn off the AC voltage to the TechniChlor for 5 or more seconds and then turn it back on
- After the startup sequence, the TechniChlor will start to slowly flash 4 **GREEN** lights up to 10 times
- Count the **GREEN** flashes and on the count that you want for the new power level either put it back in the water or tap it
- The TechniChlor will then flash **BLUE** the updated power level

### 4 Tap Method

This method doesn't require cycling the power

- Remove the TechniChlor from the water
- Tap the TechniChlor 4 times, the taps should be less than a second apart
- After a few seconds the TechniChlor will start to slowly flash 4 **GREEN** lights up to 10 times
- Count the **GREEN** flashes and on the count that you want for the new power level either put it back in the water or tap it. Note: If you started this mode by tapping while still in the water the only way to select the new level is to tap it
- The TechniChlor will then flash **BLUE** the updated power level

# SELECTING THE RIGHT POWER LEVEL

Selecting the right power level requires some testing and adjustment. There are many factors that affect the sanitizing needs of a spa such as: Frequency of spa use, number of people, if there is an Ozone Generator, spa temperature, last drain and refill, phosphate level, etc. After the testing and adjustment period, TechniChlor will take care of your sanitation needs day after day.

As a starting point, set the power level to the general recommendations shown in the chart below. This is only a starting point and the final level may be very different. Use the following procedure to find the power level for your spa.

**Day 1:** Set the power level according to the table and the size of your spa.

**Day 2:** Measure the chlorine level. If it is higher than you want lower the power level by 1. If it is lower than the level you want raise the power level by 1.

**Day 3:** Repeat the Day 2 step until the chlorine remains constant at the required level for a couple days.

**NOTE:** If the chlorine level is 0 PPM, 24 hours after installation, the initial chlorine demand on the spa may be above what TechniChlor can produce in order to break away from zero. In this case, manually add chlorine or shock (according to the product label) to assist in the initial set-up.

If spa usage drops (vacation, winter, etc), **it is important to lower the power level down several levels.** If usage significantly increases (return from vacation, etc), it is important to adjust the power level up accordingly. Always retest and adjust the power level as needed.

**WARNING:** The TechniChlor does not measure the sanitizer level and the power level needs to be properly adjusted. If the power level is higher than needed and the spa is left alone for a number of days without measuring the sanitizer, the levels may be too high and potentially damage spa components.

Power Level	Gallons	Liters
1 - 3	< 200	< 760
4	200 to 300	760 to 1150
5	300 to 400	1150 to 1500
6	400 to 500	1500 to 1900
7	> 500	> 1900

## BOOST MODE

Boost Mode is designed to replenish chlorine that was just used during the last spa use. Boost Mode will continuously generate chlorine for a period of time that is 4 times the normal set power level. After the Boost Mode cycle is complete, TechniChlor will revert to the normal power level cycle.

- BOOST MODE ON (With 30 Minute Delay):** To activate Boost Mode, simply give TechniChlor One (1) Single Tap. Immediately following the single tap, TechniChlor will quickly flash **RED** Four (4) times indicating that it will automatically resume production in Boost Mode after a 30 minute delay (no lights). Re-submerge and after a 30 minute delay, TechniChlor will indicate that its in a Boost Mode Cycle when all four (4) lights are **BLUE** while its producing chlorine. This also indicates that the water is at the appropriate salt level. Note: If all four (4) lights are **RED** or **GREEN**, TechniChlor is still Boost Mode but the salt is either on the low or high side.
- BOOST MODE ON (With No Delay):** Simply give TechniChlor Three Consecutive Taps. TechniChlor will display the current power level with **BLUE** flashes and will begin production in Boost Mode with (4) **BLUE** Lights.
- BOOST MODE OFF:** Simply give TechniChlor a DOUBLE TAP and immediately re-submerge. TechniChlor will display the current power level setting and will begin production at the current power level.



# TEMPERATURE COMPENSATION

TechniChlor is designed with automatic temperature compensation. Should the spa temperature be reduced while on vacation, TechniChlor will automatically reduce chlorine output. Cold water requires less chlorine than warm water. When water temperature raises back to normal, TechniChlor will automatically resume normal chlorine output. Check chlorine levels before and after vacation to make sure proper chlorine levels are maintained.

The TechniChlor temperature is displayed after the light test when the power is cycled or 6 taps. Count the flashes for the temperature in degrees Fahrenheit and each flash has the following value: **RED** = 100, **GREEN** = 10 and **BLUE** = 1. Example: After the light test at power up the next light is **RED** and 2 **BLUE** flashes twice would be 102 degrees F. The TechniChlor temperature is typically warmer than the actual spa water due to the operation of the circuitry.

## Power Level On Times

The TechniChlor operates on a 3 hour cycle. At the start of the 3 hour period the TechniChlor will be on and at some point it will turn off depending on the power level for the rest of the 3 hours which is standby mode. At the start of the next 3 hour period the TechniChlor will reverse the polarity for self cleaning and repeat the cycle.

Temperature compensation will lower the actual amount of time on from the times listed. On power level 10 the temperature compensation isn't used and the TechniChlor will be on continuously.

Power Level	On Time	Boost Time
1	00:02:00	00:08:00
2	00:07:30	00:30:00
3	00:15:00	01:00:00
4	00:30:00	02:00:00
5	00:45:00	03:00:00
6	01:00:00	04:00:00
7	01:30:00	06:00:00
8	02:00:00	08:00:00
9	02:30:00	10:00:00
10	03:00:00	12:00:00

## QUICK REFERENCE - LIGHT COLORS

### When TechniChlor is producing chlorine:

- 2 Solid **RED** & **GREEN** Lights: Salt Level Too High (Product Shuts Off To Protect Cell) - Dilute Salt
- 2 Solid **GREEN** Lights: Normal Power Level Production - Salt level is on high side of range
- 2 Solid **BLUE** Lights: Normal Power Level Production - Salt level is within normal range
- 2 Solid **RED** Lights: Normal Power Level Production - Salt level is on low side of range
- 4 Solid **GREEN** Lights: BOOST MODE Production - Salt level is on high side of range
- 4 Solid **BLUE** Lights: BOOST MODE Production - Salt level is within normal range
- 4 Solid **RED** Lights: BOOST MODE Production - Salt level is on low side of range

### When TechniChlor is not producing chlorine:

- 2 **GREEN** Lights Quick Flash Every 10 Seconds: Indicating Normal Standby Mode (off time)

### After One (1) Single Tap (Boost Mode With 30 Minute Delay):

- 4 **RED** Lights Quickly Flash 4 Times: Indicating Boost Mode Production after 30 minute with no lights

### After Two (2) Consecutive Taps:

- 2 **BLUE** Lights Flashing the power level, and then back to normal chlorine production

### After Three (3) Consecutive Taps (Boost Mode With No Delay):

- 2 **BLUE** Lights Flashing the power level, and then boost mode chlorine production

### After Four (4) Consecutive Taps:

- 4 **GREEN** Lights Flash Slowly 10 Times: Indicating the unit is in Power Change Mode

# TROUBLESHOOTING

It is always a good idea to revisit the user manual to make sure installation or maintenance steps were not overlooked before referring to the trouble shooting section.

## ***Plates Need Cleaning - Cleaning the Electrode (Cell) - White Calcium Deposits***

- If there is a white calcium buildup between the titanium plates, this will interfere with the chlorine production. Disconnect the power before cleaning. Soak the cell in a mild acid (white vinegar or pH down) for 10 to 30 minutes and rinse in clean water. Repeat until the white deposits are gone

## ***Solid RED Lights***

- Salt level low: Add salt. Before adding salt it is a good idea to measure the salt level first.
- Plates need cleaning: If there is a white calcium buildup between the plates this will interfere with the chlorine production. Disconnect the power before cleaning. Soak the cell in a mild acid (white vinegar or pH down) for 10 to 30 minutes and rinse in clean water. Repeat until the white deposits are gone.
- Plates damaged: Unit needs to be replaced. The plates will last 7000 to 10000 hours of chlorine production and the TechniChlor may be at the end of its life. Note: The lower the power level you can operate on, the longer the TechniChlor will last.

## ***Consistently Low Chlorine***

- Power level too low: Increase the power level
- Low salt level: Adjust the salt level as necessary. The TechniChlor will make less chlorine with a lower salt level
- Plates need cleaning: See above
- High bather load: Additional chlorine or shock may be needed
- Very high salt level: The **RED** and **GREEN** lights may be on indicating a very high salt level. When this happens the TechniChlor shuts down and will stop making chlorine to protect the power supply. Drain out some of the water and refill with fresh water to lower the salt level.
- Just doesn't keep up:
  - Remove organic material such as leaves and clean the filter
  - Make sure the unit is at the deepest point in the spa and in a **VERTICAL ORIENTATION!**
  - Remove the phosphates: Phosphates are food for algae and consume chlorine. The TechniChlor makes chlorine slowly and removing the phosphates will help lower the spas chlorine consumption demand
  - Shock the water: You can use either a chlorine based shock or chlorine free

## ***Consistently High Chlorine***

- Power level too high: Lower the power level

## ***Can't Change the Power Level By Tapping***

- There are two ways to change the power level, try the cycle power method (see changing power levels).

## ***The TechniChlor is off, No Lights***

- Check if in the standby part of the cycle, watch and see if the GREEN lights flash every 10 seconds
- The TechniChlor may be near a jet and was pushed by the water causing a tap, this will keep it off for 30 minutes with no lights
- The GFCI circuit breaker has tripped. Verify that there is input VAC.
- The power supply has been damaged. The rain cover didn't prevent moisture from the power supply, was subjected to freezing weather or the cord has been cut.

## ***Some of the directions in this manual don't work with my TechniChlor***

- This manual is for TechniChlor's with a serial number starting with 87, verify your serial number

## ***Cold Weather Operation***

The power supply is not designed for temperatures below 32°F or 0°C. If this can't be avoided store the power supply in a warm location when the temperature is low or install the power supply in the spas equipment area where there is some protection.

**Notes:**

## LIMITED WARRANTY

Models: This warranty applies to TechniChlor model referenced as "System".

ControlOMatic, Inc. Warrants the system to be free of all defects in material and workmanship for one (1) year from the owners original purchase date. The system includes the power supply unit, cable, electronics, and electrolytic generator for residential use only. The product must be installed properly and used in accordance with this manual and all applicable local codes and regulations. This warranty is not transferable (proof of purchase may be necessary). Damage to the system from improper water maintenance is not covered in this warranty.

In no event shall ControlOMatic, Inc. be liable for consequential damages for breach of this warranty. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply. The warranty does not cover any loss or damage to the product due to improper installation, product abuse, misuse, negligence, or improper maintenance of the system, pool or spa. The warranty does not cover any loss or damage to the spa, spa components, users, or anything outside the system due to system failure. Since ControlOMatic has no control of the use of this system the purchaser assumes all responsibility for using the system.

This warranty does not apply to any costs, repairs, services, damages, claims or losses for all of the following: Service calls to install, re-install or correct the installation of the product, or to explain the usage of the system to the buyer, repairs necessitated by use other than normal home use, damage resulting from misuse, unintended use, unforeseen use, non pool or spa use, abuse, accidents, alterations, improper installation, or corrective work necessitated by repairs made by anyone other than an authorized service technician.

THE FOREGOING WARRANTIES ARE CONTINGENT ON THE PROPER USE OF THE SYSTEM IN ACCORDANCE WITH THESE INSTRUCTIONS AND SPECIFICATIONS AND SHALL NOT APPLY TO ANY SYSTEM THAT HAS BEEN REPAIRED OR MODIFIED BY PERSONS OTHER THAN THE MANUFACTURER.

THE EXPRESS WARRANTIES SET FORTH IN THIS AGREEMENT ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. MANUFACTURER HEREBY SPECIFICALLY DISCLAIMS ANY OTHER REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

IN NO EVENT WILL MANUFACTURER'S LIABILITY FOR ANY CLAIM, WHETHER IN CONTRACT, TORT OR UNDER ANY OTHER THEORY OF LIABILITY, EXCEED THE AMOUNT NECESSARY TO REPAIR OR REPLACE THE COVERED SYSTEM.

Should any problem develop during the warranty period contact ControlOMatic, [www.controlomatic.com](http://www.controlomatic.com).

## PRODUCT REGISTRATION

Either register your TechniChlor online at [www.controlomatic.com](http://www.controlomatic.com) or fill out the information below and mail it to: ControlOMatic, 12659 Arbor Ln. Grass Valley, CA 95949. If purchased directly from ControlOMatic you will already be registered.

Model: Technichlor	Serial Number	
First Name:	Last Name:	
Purchased From:		
Address		
City:	State:	Postal Code:
Phone	Email:	